

DIVISION 2 SITEWORK

02080 ASBESTOS REMOVAL

PART 1 – GENERAL

1.1 WORK

- A. Work includes the removal of asbestos and asbestos containing materials in excess of 160 square feet or 260 lineal feet.
- B. Provide all related materials, equipment, and labor required to complete the work specified.

1.2 QUALITY OF WORK

- A. Provide experienced, well-trained and certified asbestos abatement supervisor and certified asbestos workers to complete the work.
- B. All work shall comply with the City of Milwaukee Code of Ordinances, Chapter 66, “Asbestos Hazard Control” regulations.
- C. Work shall also comply with State of Wisconsin Department of Natural Resources (DNR), Chapter NR 447 Asbestos Removal Regulations, Federal Environmental Protection Agency (EPA) Clean Air Act, and Occupational Safety and Health Administration (OSHA) worker safety codes and regulations.

1.3 SUBMITTALS

- A. When the asbestos removal is to occur in a building of three (3) or more dwelling units, the **Contractor** shall obtain an Asbestos Abatement Permit from the City of Milwaukee Department of City Development Permit Center (809 N. Broadway, 1st floor) prior to starting asbestos removal. This permit is not required for one and two family dwellings.
- B. When asbestos removal is subject to the provisions of this Section, notification shall be made to the State of Wisconsin DNR in accordance with Chapter NR 447.
- C. **Contractor** shall supply a detailed abatement plan along with their permit application to the City of Milwaukee Department of City Development Permit Center.
- D. Supply **Agency** with a copy of the Asbestos Abatement Permit.
- E. **Contractor** shall clearly post in plain view asbestos abatement warning signs outside of the entrance to containment areas.
- F. **Contractor** shall provide **Owner** and (if applicable) tenant a minimum of two (2) days advance notice prior to starting any asbestos removal.
- G. **Contractor** shall provide the **Owner** and the **Agency** with copies of:
 - All final clearance testing.
 - The waste disposal tickets and the Hazardous Waste Manifest from the Wisconsin DNR.

PART 2 – MATERIALS

2.1 PROTECTIVE BARRIERS AND COVERS

- A. Provide demolition materials, barriers, protective covers, etc. to complete the work assigned.
- B. Provide all necessary containment measures necessary to protect occupants, workers, and property.
- C. Install asbestos containment measures as required by State and Local regulations. See [Section 01810 Lead Dust Hazards](#) for additional containment information.

2.1 STANDARD TREATMENTS

- A. Remove asbestos containing materials as listed in the **Scope**.
 - Removal of pipe and duct wrap.
 - Removal of slate siding or roofing materials.
 - Building components containing pipe or duct wrap.
 - Flooring tile and/or flooring adhesives
 - Plaster, stucco and mastics.

- B. Stabilization of asbestos or asbestos containing materials as listed in the **Scope**.
 - Use an approved “Lockdown” product.
 - Use an approved enclosure or containment method.
- C. Prohibited practices:
 - Use of non-HEPA approved vacuum.
 - Dry removal methods such as scraping, sanding, or sweeping. Use only wet methods when disturbing asbestos and asbestos containing materials.
 - Asbestos debris shall not be stored on site unless it is properly protected in approved containment devices.
 - Creating asbestos hazards.
 - Disposal of asbestos and/or asbestos containing materials in City of Milwaukee trash containers.

PART 3 – CONSTRUCTION

3.1 SITEWORK PREPARATION AND CONTAINMENT

- A. Protection of property:
 - Close all windows and doors adjacent to asbestos removal work area.
 - Don’t allow debris or dust to contaminate interior areas of building or adjacent property.
 - Locate any hidden utilities, electric, water, sewer, heat, etc. and disconnect, cover, or cap off utilities prior to start of asbestos removal.
 - Provide sturdy barriers and covers as necessary for safety and to protect remaining work.
 - Provide braces or shores wherever structural elements will be removed in partial demolition.
 - Do not allow any dislodged materials to fall outside the containment area.
- B. Provide all materials and equipment required to safely contain asbestos hazards.
 - Containment areas shall be constructed using 6 mil polyethylene and duct tape in such a fashion as to prevent the dispersion of asbestos dust and particles.
 - Cover ground or floor areas with two layers of 6 mil polyethylene.
 - Shut down forced air heating systems and seal all hot and cold air returns with 6 mil polyethylene and duct tape.
 - Cover and seal all surfaces not to be worked on in the containment area.
 - Entrances to containment areas used by workers shall have two (2) layers of 6 mil polyethylene attached to the top edges of the doorway and at opposite sides of the doorway to form a z-door.
 - Provide all necessary worker decontamination equipment.
- C. All containment measures shall be in place prior to the commencement of asbestos removal.

3.1 REMOVAL AND DISPOSAL

- A. Asbestos removal as indicated on **Scope**.
 - Start removal at top most level, and proceed downward.
 - Provide water supply and hoses for spray, to control dust.
 - Use wet methods for removal.
 - Do not allow excessive amounts of asbestos and asbestos containing materials to collect inside the containment area.
 - Properly wrap asbestos and asbestos containing materials in approved containers for disposal.
- B. Asbestos and asbestos containing materials shall be:
 - Disposed of in properly labeled double 6 mil polyethylene bags sealed with duct tape.
 - Dumpsters shall be lined with 6 mil polyethylene to prevent asbestos dispersion during transportation.
 - Disposal shall be in compliance with State of Wisconsin DNR regulations.
 - No debris shall be stored outside the building while awaiting disposal.
 - Dumpsters shall be promptly removed from the site so as to prevent asbestos contamination.

3.2 CLEARANCE

- A. Daily cleanup:
 - Use HEPA vacuuming and wet cleaning methods.
 - The work area shall be cleaned daily throughout the entire asbestos removal project.

- The **Contractor** is responsible for preventing other areas in and around the containment area from becoming contaminated.
 - Exterior containment measures shall be removed and disposed in an approved manner of on a daily basis unless adequate measures have been taken to prevent unauthorized entrance to the contained areas and the containment measures are adequately protected from vandalism, weather conditions, etc.
- B. Final cleaning:
- Completely control and remove all asbestos, asbestos debris, etc.
 - Disposal of asbestos and asbestos containing materials shall be done in compliance with all Local and State regulations.
 - Final cleaning requires thorough HEPA vacuuming and wet washing followed by the use of lockdown to seal any fibers that may remain.
- C. A final clearance shall be conducted at the completion of the asbestos removal work.
- In the event of a final clearance failure, the **Contractor** shall at **Contractor's** expense shall provide all additional cleaning and preparation work necessary for re-testing.
 - The **Contractor** shall be responsible for the cost of additional final clearance testing including laboratory fees.
 - **Contractor** shall be responsible for all clean up of other areas contaminated as a result of **Contractor's** work.

END OF SECTION – 02080 ASBESTOS REMOVAL